



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/712,954	11/14/2003	Alan Kavanagh	P18454US2	9532
7590 06/29/2007				
ALEX NICOLAESCU		EXAMINER		
Ericsson Canada Inc.		WONG, BLANCHE		
Patent Department (LMC/M/P)				
8400 Decarie Blvd.		ART UNIT		
Town Mount Royal, QC H4P 2N2		2616		
CANADA		MAIL DATE		
		06/29/2007		
		DELIVERY MODE		
		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/712,954

Applicant(s)

KAVANAGH ET AL.

Examiner

Blanche Wong

Art Unit

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7, 9-15 and 17 is/are rejected.
- 7) ☒ Claim(s) 8 and 16 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 November 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>Nov03</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. New corrected drawings in compliance with 37 CFR 1.121(d) are required in this application because the current set of drawings are hand-drawn. Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. **Claims 9 and 17** is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With regard to claim 9, line 6, and claim 17, line 5, it is unclear what is the another IP datagram.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

Art Unit: 2616

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. **Claims 1,2,6,10,11,15** are rejected under 35 U.S.C. 102(e) as being anticipated by Verma et al. (Pub No. US 2005/0157673) (Verma '673).

With regard to claims 1 and 10, Verma '673 discloses handoff between 3G and WLAN comprising:

a) receiving at a WLAN Integration Gateway (WIG) node **(IWF) (the WLAN coverage area interacts with a UMTS network through an interworking function (IWF), para. [0004])** mobility information **(Gn in Fig. 1) (the IWF will need to communicate with the SGSN to provide the mobility for the handoff ... This can be achieved by implementing the Gn interface between the IWF and the SGSN ..., para. [0019])** relative to the MN **(MS 40 in Fig. 1)(wireless user equipment or mobile stations, para. [0021]);**

b) identifying by the WIG node a source Service GPRS Support Net (SGSN) **(SGSN 28 in Fig. 1) (the IWF will need to communicate with the SGSN to provide the mobility for the handoff ... This can be achieved by implementing the Gn interface between the IWF and the SGSN ..., para. [0019])** that lastly serviced the MN in the cellular network based on the mobility information;

c) obtaining by the WIG node Packet Data Protocol (PDP) (**PDP, para. [0028]**) Context information relative to the MN from the identified source SGSN (**SGSN provides a context response to IWF-SGSN, para. [0027]**);

d) establishing a GPRS Tunneling Protocol (GTP) tunnel (**GTP tunnel 31 in Fig. 1**) for use by the MN between the WIG node (**IWF**) and a Gateway GPRS Support Node (GGSN) (**GGSN**) (**GTP tunnel between GGSN and IWF, para. [0020]**).

With regard to claims 2 and 11, Verma '673 further discloses

a.1) sending from the MN to the WIG node, via an Access Point (AP) (**WLAN Access Point 30 in Fig. 1**) of the WLAN, the mobility information.

With regard to claims 6 and 15, Verma '673 further discloses

d.1) sending a PDP Context Updata message (**update PDP context request**) from the WIG node (IWF) to the GGSN (**GGSN**) (**new SGSN or IWF 44 sends an update PDP context request to GGSN, para. [0028]**).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. **Claims 3-5,12-14** are rejected under 35 U.S.C. 103(a) as being unpatentable over Verma '673 in view of Verma et al. (Pub No. US 2006/0050667) (Verma '667).

With regard to claims 3 and 12, Verma '673 discloses the method claimed in claim 2 and the WIG node claimed in claim 11. However, Verma '673 fails to disclose an IP that is assigned to the MN by the cellular network; and Routing Area Identification (RAI) information relative to a routing area where the MN was serviced in the cellular network before the handoff to the WLAN.

Verma '667 further discloses an IP address (**IP address, para. [0022]**) and Routing Area Identification (RAI) information (**TEID and UDP, para. [0022]**).

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine an IP address and RAI information as taught by Verma '667 with Verma '673 in order to identify the GTP tunnel established between the IWF and GGSN.

With regard to claims 4 and 13, Verma '673 further discloses an International Mobile Subscriber Identity (**IMSI, para. [0029]**) and Packet Temporary Mobile Subscriber Identity (**PTMSI, para. [0030]**).

With regard to claims 5 and 14, Verma '673 further discloses

Art Unit: 2616

b.1) translating by the WIG node **(the new SGSN (IWF), para. [0029])** the RAI information received from the MN into an identification **(Update Location ([new] SGSN Number and [new] SGSN Address, para. [0029])** of the source SGSN.

8. **Claim 7** is rejected under 35 U.S.C. 103(a) as being unpatentable over Verma '673 in view of Asokan et al. (U.S. Pat No. 6,959,009).

With regard to claim 7, Verma '673 discloses the method claimed in claim 1. However, Verma '673 fails to explicitly show updating by the GGSN a GTP routing table of the GGSN.

Asokan discloses updating by the GGSN a GTP routing table of the GGSN **(The GGSN makes appropriate local modifications, such as in its routing table, col. 10, lines 41-42).**

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine updating by the GGSN a GTP routing table of the GGSN as taught by Asokan with Verma '673 so that any packet passing through GGSN and into the subnet and destined for a particular node will be directed towards the correct GTP tunnel. Asokan, col. 10, lines 41-43.

Allowable Subject Matter

9. Claims 8 and 16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
10. Claims 9 and 17 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Blanche Wong whose telephone number is 571-272-3177. The examiner can normally be reached on Monday through Friday, 830am to 530pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on 571-272-3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

BW

BW
June 22, 2007

Daniel J. Ryman
Patent Examiner
AU 2616

Daniel Ryman